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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	4	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	5	MAR 02	GBFULL: New full-text patent database on STN
NEWS	6	MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	7	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS	8	MAR 22	KOREAPAT now updated monthly; patent information enhanced
NEWS	9	MAR 22	Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS	10	MAR 22	PATDPASPC - New patent database available
NEWS	11	MAR 22	REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS	12	APR 04	EPFULL enhanced with additional patent information and new fields
NEWS	13	APR 04	EMBASE - Database reloaded and enhanced
NEWS	14	APR 18	New CAS Information Use Policies available online
NEWS	15	APR 25	Patent searching, including current-awareness alerts (SDIs), based on application date in CA/CAplus and USPATFULL/USPAT2 may be affected by a change in filing date for U.S. applications.
NEWS	16	APR 28	Improved searching of U.S. Patent Classifications for U.S. patent records in CA/CAplus
NEWS	17	MAY 23	GBFULL enhanced with patent drawing images
NEWS	18	MAY 23	REGISTRY has been enhanced with source information from CHEMCATS
NEWS	19	JUN 06	The Analysis Edition of STN Express with Discover! (Version 8.0 for Windows) now available
NEWS	20	JUN 13	RUSSIAPAT: New full-text patent database on STN
NEWS	21	JUN 13	FRFULL enhanced with patent drawing images
NEWS	22	JUN 27	MARPAT displays enhanced with expanded G-group definitions and text labels
NEWS	23	JUL 01	MEDICONF removed from STN
NEWS	24	JUL 07	STN Patent Forums to be held in July 2005
NEWS	25	JUL 13	SCISEARCH reloaded
NEWS	26	JUL 20	Powerful new interactive analysis and visualization software, STN AnaVist, now available
NEWS	27	AUG 11	Derwent World Patents Index(R) web-based training during August
NEWS	28	AUG 11	STN AnaVist workshops to be held in North America
NEWS	29	AUG 30	CA/CAplus -Increased access to 19th century research documents
NEWS	30	AUG 30	CASREACT - Enhanced with displayable reaction conditions

NEWS EXPRESS JUNE 13 CURRENT WINDOWS VERSION IS V8.0, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005

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FILE 'HOME' ENTERED AT 15:51:45 ON 01 SEP 2005

=> file .biotech caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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FULL ESTIMATED COST                                     1.05       1.05

FILES 'MEDLINE, BIOTECHDS, EMBASE, BIOSIS, SCISEARCH, CANCERLIT, CAPLUS'
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7 FILES IN THE FILE LIST

=> s saraf R?/au or Wickramesinghe H?/au
L1          182 SARAF R?/AU OR WICKRAMESINGHE H?/AU

=> s l1 and electrod##
L2            8 L1 AND ELECTROD##

=> s l1 and electron#####
L3           20 L1 AND ELECTRON#####

=> dup re, l2
'RE' IS NOT VALID HERE
Enter "REMOVE" to identify and remove duplicate answers.
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Enter "ONLY" to identify and create an answer set containing only
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=> dup rem l2
PROCESSING COMPLETED FOR L2
L4             6 DUP REM L2 (2 DUPLICATES REMOVED)

=> d ibib abs l4 1-6

L4   ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         2004:304077  CAPLUS
DOCUMENT NUMBER:          140:371241
TITLE:                    Highly Selective, Electrically Conductive Monolayer of
                          Nanoparticles on Live Bacteria
AUTHOR(S):                Berry, V.; Rangaswamy, S.; Saraf, R. F.
CORPORATE SOURCE:         Department of Chemical Engineering, Virginia Tech,
                          Blacksburg, VA, 24061, USA
SOURCE:                   Nano Letters (2004), 4(5), 939-942
                          CODEN: NALEFD; ISSN: 1530-6984
PUBLISHER:                American Chemical Society
```

DOCUMENT TYPE: Journal
LANGUAGE: English
AB Using specific peptide-bacteria affinity, a monolayer of 30 nm Au particle is selectively deposited on live bacteria surface to produce elec. conducting bridges spanning over 12 μm. The conductivity of the monolayer network is further improved by over 10-fold by "elec.-field annealing". The annealing process is explained by a percolation model.
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 6 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 1
ACCESSION NUMBER: 2003-10613 BIOTECHDS
TITLE: Molecular binding events detecting device used in genetic studies, detects binding of ligand to molecular binding materials as change in frequency response under applied oscillatory field;
ligand binding detection device useful for genomics, drug discovery and biological warfare detection
AUTHOR: **SARAF R**
PATENT ASSIGNEE: VIRGINIA TECH INTELLECTUAL PROPERTIES
PATENT INFO: WO 2003001179 3 Jan 2003
APPLICATION INFO: WO 2002-US18658 13 Jun 2002
PRIORITY INFO: US 2002-368956 2 Apr 2002; US 2001-299416 21 Jun 2001
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-210166 [20]
AN 2003-10613 BIOTECHDS
AB DERWENT ABSTRACT:
NOVELTY - A molecular binding material (10) is positioned in a conductive path between two spaced apart **electrodes** (12) of a capacitor.
The binding of a ligand to the molecular binding material, is detected as a change in a frequency response under an applied oscillatory field.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for molecular binding event detection method.
USE - Used in genetic studies, drug discovery, and biological warfare for detecting pollutants, toxins and noxious substances.
ADVANTAGE - Detects molecular binding event rapidly at very high sensitivity without using chemical labels, such that the molecules detected can remain unmodified, thereby the method is non-destructive.
(20 pages)

L4 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:453841 CAPLUS
DOCUMENT NUMBER: 139:172086
TITLE: Mesoscale thin film actuator for promoting fluid motion in microfluidic and nanofluidic channels
AUTHOR(S): Sadler, Daniel J.; Singh, Gaurav; Zenhausern, Frederic; **Saraf, Ravi F.**
CORPORATE SOURCE: Motorola Labs Solid State Research Center, Tempe, AZ, 85284, USA
SOURCE: Materials Research Society Symposium Proceedings (2003), Volume Date 2002, 741(Nano- and Microelectromechanical Systems (NEMS and MEMS) and Molecular Machines), 3-8
CODEN: MRSPDH; ISSN: 0272-9172
PUBLISHER: Materials Research Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Microfluidic and nanofluidic devices often require actuators to induce fluid motion for applications such as pumping and mixing in small channels. Mixing, for instance, is important in systems where channel or chamber dimensions are .apprx.100 μm or larger as diffusive mixing can

be prohibitively slow at these dimensions. A new mesoscale thin film polymer electromech. actuator is introduced for use in the aforementioned applications. Unlike inorg. piezoelec. actuators, the devices based on these materials will be relatively easy to fabricate involving no high temperature processing, crystal growth, or microlithog. Fabrication of an array of actuators is simply achieved by spin casting the polymer over top of lithog. patterned Au **electrodes** at a thickness of <50 nm. This simple process enables a microfluidic device based on these actuators to be an integral part of a microfluidic channel rather than a sep. unit operation. Depending on the application, the actuator array can be designed and controlled for random perturbations of the fluid flow field as required for mixing or for systematic actuation as required for pumping. These thin-film mesoscale actuators were characterized and show extremely favorable properties such as a high electrostrictive response (compared to none in the bulk) and a frequency response of up to 50 kHz. Finite element simulations show feasibility of these actuators for use in microfluidic mixing applications.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 6 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 2

ACCESSION NUMBER: 2001-13372 BIOTECHDS

TITLE: Structure for semiconductor chips, comprises substrate, three **electrodes**, and polymer string;
DNA **electrode** and glass support matrix for DNA chip

AUTHOR: **Saraf R F**; Wickramasinghe H K

PATENT ASSIGNEE: Saraf R F; Wickramasinghe H K

LOCATION: Briar Cliff Manor, NY, USA; Chappaqua, NY, USA.

PATENT INFO: US 6218175 17 Apr 2001

APPLICATION INFO: US 1998-182874 30 Oct 1998

PRIORITY INFO: US 1998-182874 30 Oct 1998

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: WPI: 2001-406823 [43]

AN 2001-13372 BIOTECHDS

AB A structure, containing a substrate, two **electrodes** spaced apart from each other on the substrate, a polymer ring positioned on the substrate between the two **electrodes**, and a third **electrode** arranged between the two **electrodes** perpendicular to the polymer string is claimed. The polymer string has a width of less than 50 nm. The structure is useful in semiconductor chips and DNA chips. A seed layer or a biopolymer is on at least a portion of the polymer string. Nanoparticles are bonded to the polymer string, and include metal, semiconductor and/or insulator. The third **electrode** is equidistant from the first and second **electrodes**. The first and second **electrodes** terminate in sharp tips that face each other. The seed layer includes metal particles. The first and second **electrodes** are made of a material that includes gold, or of an oxide-free material. The preferred biopolymer includes DNA, and has a molecular axis that is parallel to the polymer string. The substrate is made of a material that includes a glass. (8pp)

L4 ANSWER 5 OF 6 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN

ACCESSION NUMBER: 2000-07084 BIOTECHDS

TITLE: Self-assembled semiconducting nano-device is based on a structure comprising DNA molecule bonded to nanoparticle and extending between two **electrodes**;
including an R loop and an RNA strand complementary to one strand of the DNA molecule inside the R loop

AUTHOR: **Saraf R F**; Wickramasinghe H
PATENT ASSIGNEE: International-Business-Machines
LOCATION: Armonk, NY, USA.
PATENT INFO: EP 987653 22 Mar 2000
APPLICATION INFO: EP 1999-306777 26 Aug 1999
PRIORITY INFO: US 1998-154575 17 Sep 1998
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2000-239256 [21]
AN 2000-07084 BIOTECHDS
AB A nano-device structure comprises a substrate, first and second **electrodes** on the substrate, a DNA molecule extending between the two **electrodes**, and a nanoparticle bonded to the DNA. The DNA molecule includes an R-loop and the nanoparticle is bonded to the DNA molecule inside the R-loop. The structure also includes an RNA strand complementary to one strand of the DNA molecule inside the R-loop. Also claimed are a method of producing the structure and a method for controlling a device that comprises the structure comprising: creating a bias in the electrically conducting material; and regulating a change in the nanoparticle to effect a change in the current in the electrically conducting material. Production of devices on a nanometric scale by overcoming the limitations imposed by photolithographic techniques. The devices have extremely small active feature sizes. (19pp)

L4 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:542090 CAPLUS
TITLE: Micro goniometer for scanning microscopy
INVENTOR(S): Gupta, Arunava; **Saraf, Ravi**
PATENT ASSIGNEE(S): International Business Machines Corporation, USA
SOURCE: U.S., 20 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6100523	A	20000808	US 1997-960692	19971029
US 6552339	B1	20030422	US 2000-572209	20000517
PRIORITY APPLN. INFO.:			US 1997-960692	A3 19971029

AB A goniometer for performing scanning probe microscopy on a substrate surface is disclosed. The goniometer has a cantilever, having a cantilevered end and a supported end and a tip disposed at the cantilevered end of the cantilever. The goniometer also has a block disposed at the supported end of the cantilever. The block has at least one pair of piezoelectric layers, a pair of **electrodes** disposed about each individual piezoelectric layer such that varying a potential difference applied between the individual **electrodes** of a pair of **electrodes** causes the corresponding piezoelectric layer to deform, and a first insulating material disposed between the individual **electrodes** for insulating the individual **electrodes** from each other. The individual piezoelectric layers are deformed at different rates resulting in a deformity of the block and tilting of the cantilever and tip connected therewith. Also disclosed are methods of using the goniometer of the present invention to measure the interactive forces between two molecular structures using a scanning probe microscope equipped with a goniometer of the present invention.
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s electrod### and substrat##

```
L5       99361 ELECTROD### AND SUBSTRAT##

=> s l5 and DNA
L6         948 L5 AND DNA

=> s l6 and RNA
L7         169 L6 AND RNA

=> s l7 and nanoparticl###
L8          12 L7 AND NANOPARTICL###

=> s l5 and R-Loop
L9           1 L5 AND R-LOOP

=> d all

L9    ANSWER 1 OF 1  BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
AN    2000-07084  BIOTECHDS
TI    Self-assembled semiconducting nano-device is based on a structure
      comprising DNA molecule bonded to nanoparticle and extending between two
      electrodes;
         including an R loop and an RNA strand
         complementary to one strand of the DNA molecule inside the R
         loop
AU    Saraf R F; Wickramasinghe H
PA    International-Business-Machines
LO    Armonk, NY, USA.
PI    EP 987653 22 Mar 2000
AI    EP 1999-306777 26 Aug 1999
PRAI  US 1998-154575 17 Sep 1998
DT    Patent
LA    English
OS    WPI: 2000-239256 [21]
AB    A nano-device structure comprises a substrate, first and second
      electrodes on the substrate, a DNA molecule extending
      between the two electrodes, and a nanoparticle bonded to the
      DNA.  The DNA molecule includes an R-loop and the
      nanoparticle is bonded to the DNA molecule inside the R-
      loop.  The structure also includes an RNA strand complementary to
      one strand of the DNA molecule inside the R-loop.
      Also claimed are a method of producing the structure and a method for
      controlling a device that comprises the structure comprising: creating a
      bias in the electrically conducting material; and regulating a change in
      the nanoparticle to effect a change in the current in the electrically
      conducting material.  Production of devices on a nanometric scale by
      overcoming the limitations imposed by photolithographic techniques.  The
      devices have extremely small active feature sizes.  (19pp)
CC    C ANALYSIS; C1 Sensors and Analysis; A GENETIC ENGINEERING AND
      FERMENTATION; A1 Nucleic Acid Technology
CT    SELF-ASSEMBLED NANO-DEVICE, SEMICONDUCTOR, DNA MOLECULE, NANOPARTICLE,
      R-LOOP, RNA STRAND, ELECTRODE, SMALL ACTIVE
      FEATURE SIZE, DNA BIOSENSOR ANALYSIS (VOL.19, NO.13)


=> d his

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     FILE 'MEDLINE, BIOTECHDS, EMBASE, BIOSIS, SCISEARCH, CANCERLIT, CAPLUS'
     ENTERED AT 15:54:45 ON 01 SEP 2005
L1         182 S SARAF R?/AU OR WICKRAMESINGHE H?/AU
L2           8 S L1 AND ELECTROD##
L3          20 S L1 AND ELECTRON#####
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L4            6 DUP REM L2 (2 DUPLICATES REMOVED)
L5        99361 S ELECTROD### AND SUBSTRAT##
L6          948 S L5 AND DNA
L7          169 S L6 AND RNA
L8           12 S L7 AND NANOPARTICL###
L9            1 S L5 AND R-LOOP

=> s r-loop
L10       1014 R-LOOP

=> s l10 and electrod##
L11          4 L10 AND ELECTROD##

=> s l10 and nanoparticl##
L12          2 L10 AND NANOPARTICL##

=> d ibib abs l11 1-4

L11  ANSWER 1 OF 4     MEDLINE on STN
ACCESSION NUMBER:   88221353     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 2967067
TITLE:              [Electrovectocardiographic manifestations of left
                    ventricular and biventricular growth].
                    Manifestaciones electrovectocardiograficas de los
                    crecimientos ventricular izquierdo y biventricular.
AUTHOR:             de Micheli A; Medrano G A
CORPORATE SOURCE:   Departamento de Electrocardiografia y Vectocardiografia,
                    Instituto Nacional de Cardiologia Ignacio Chavez, Mexico.
SOURCE:             Archivos del Instituto de Cardiologia de Mexico, (1988
                    Jan-Feb) 58 (1) 67-77.  Ref: 37
                    Journal code: 0400463. ISSN: 0020-3785.
PUB. COUNTRY:       Mexico
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
                    General Review; (REVIEW)
                    (REVIEW, TUTORIAL)
LANGUAGE:           Spanish
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        198806
ENTRY DATE:         Entered STN: 19900308
                    Last Updated on STN: 20000303
                    Entered Medline: 19880621
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AB The basic criteria for the electrical diagnosis of left ventricular and biventricular enlargements are discussed on the basis of the myocardial depolarization and repolarization sequence. Left ventricular dilatation secondary to isolated diastolic overloading increases the manifestation of the main vectors resulting from the activation of this ventricle. These changes reflect the proximity of the left ventricular walls to the exploring **electrodes**. The above mentioned vectors appear as tall R waves and wide ventricular curves with counterclockwise rotation on the three planes. If the diastolic overload is a isolated phenomenon, T waves are positive and asymmetric on the left leads while the T loop, of secondary type, is concordant in its orientation with the **R loop**. This fact is due to a prolonged duration of the repolarization phase of the left ventricle. Global left ventricular hypertrophy produced by a sustained systolic overloading increases the magnitude and manifestation of all the vectors resulting from the depolarization of this ventricle (I, II 1, III 1) owing to the prolonged duration of the corresponding activation fronts. When LBBB is also present, the first septal vector is not evident. In extreme degrees of the systolic overload, the T wave is inverted and shows morphologic secondary characteristics in left leads, and the T loop opposes the **R loop** on frontal and horizontal planes. The directional changes of the repolarization fronts of free left ventricular

walls can satisfactorily explain these features. Left ventricular hypertrophy of a segmentary type, such as that observed in idiopathic myocardiopathy, generally increases the magnitude and manifestation of septal vector I and II left. When both ventricles are hypertrophied, the electromotive forces originating in the more severely affected heart chamber predominate in electrical records.

L11 ANSWER 2 OF 4 MEDLINE on STN
ACCESSION NUMBER: 82082270 MEDLINE
DOCUMENT NUMBER: PubMed ID: 162478
TITLE: [Vectorcardiographic manifestations of left ventricular and biventricular enlargement].
Manifestaciones vectocardiograficas de los crecimientos ventricular izquierdo y biventricular.
AUTHOR: de Micheli A; Medrano G A
SOURCE: La Prensa medica mexicana, (1979 Nov-Dec) 44 (11-12) 251-9.
Journal code: 0413433. ISSN: 0032-7468.
PUB. COUNTRY: Mexico
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Spanish
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198202
ENTRY DATE: Entered STN: 19900316
Last Updated on STN: 20000303
Entered Medline: 19820222

AB The basic criteria for the vectorcardiographic diagnosis of left ventricular and biventricular enlargements are discussed on the basis of the myocardial activation sequence. Left ventricular dilatation, secondary to isolated diastolic overloading, increases the manifestation of all the vectors resulting of the activation of this ventricle. These changes reflect the proximity of the left ventricular walls to the exploring **electrodes**. The vectors above mentioned project themselves as wide ventricular curves with counterclockwise rotation on the three planes. The T loop, of secondary type, is concordant in its orientation with the **R loop**. Cases with left ventricular hypertrophy, produced by a sustained systolic overloading, are also described. In the presence of global left ventricular hypertrophy without LBBB, the manifestation of all the vectors resulting from the depolarization of this ventricle (I, III, IIII), is increased. This is due to a prolonged duration of the corresponding activation fronts. These vectors are projected on the different segments of the ventricular curves and they show a counterclockwise rotation on the three planes. When LBBB is also present, the first septal vector is not evident. The T loop, of secondary type, opposes the **R loop** on the frontal and horizontal planes. The presence of left ventricular hypertrophy of the segmentary type, generally increases the manifestation of the vector I, and sometimes, also that of the vector IIII. When both ventricles are hypertrophied, the electromotive forces of the chamber more severely affected predominate in the vectorcardiographic records.

L11 ANSWER 3 OF 4 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2000-07084 BIOTECHDS
TITLE: Self-assembled semiconducting nano-device is based on a structure comprising DNA molecule bonded to nanoparticle and extending between two **electrodes**;
including an **R loop** and an RNA strand complementary to one strand of the DNA molecule inside the **R loop**
AUTHOR: Saraf R F; Wickramasinghe H
PATENT ASSIGNEE: International-Business-Machines
LOCATION: Armonk, NY, USA.
PATENT INFO: EP 987653 22 Mar 2000
APPLICATION INFO: EP 1999-306777 26 Aug 1999

PRIORITY INFO: US 1998-154575 17 Sep 1998
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2000-239256 [21]
AN 2000-07084 BIOTECHDS
AB A nano-device structure comprises a substrate, first and second **electrodes** on the substrate, a DNA molecule extending between the two **electrodes**, and a nanoparticle bonded to the DNA. The DNA molecule includes an **R-loop** and the nanoparticle is bonded to the DNA molecule inside the **R-loop**. The structure also includes an RNA strand complementary to one strand of the DNA molecule inside the **R-loop**. Also claimed are a method of producing the structure and a method for controlling a device that comprises the structure comprising: creating a bias in the electrically conducting material; and regulating a change in the nanoparticle to effect a change in the current in the electrically conducting material. Production of devices on a nanometric scale by overcoming the limitations imposed by photolithographic techniques. The devices have extremely small active feature sizes. (19pp)

L11 ANSWER 4 OF 4 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2004:286812 BIOSIS
DOCUMENT NUMBER: PREV200400285569
TITLE: Investigation Of Amino Acids In The Loop C Region Of The Mouse 5-HT3A R By Alanine Scanning Mutagenesis.
AUTHOR(S): Suryanarayanan, Asha [Reprint Author]; Joshi, Prasad R; Kulkarni, Trupti R; Mani, Muthalagi; Schulte, Marvin K
CORPORATE SOURCE: Basic Pharmaceutical Sciences, The University of Louisiana at Monroe, 700 University Avenue, Rm 301G, Sugar Hall, Monroe, Louisiana, 71209, USA
asha_s4@yahoo.com
SOURCE: FASEB Journal, (2004) Vol. 18, No. 4-5, pp. Abst. 169.8. http://www.fasebj.org/. e-file.
Meeting Info.: FASEB Meeting on Experimental Biology: Translating the Genome. Washington, District of Columbia, USA. April 17-21, 2004. FASEB.
ISSN: 0892-6638 (ISSN print).
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Jun 2004
Last Updated on STN: 16 Jun 2004
AB 5-HT3 receptors are pentameric membrane bound receptors that belong to the ligand gated ion channel (LGIC) superfamily. The ligand-binding site of these receptors is located in the extracellular domain. Previous mutagenesis studies and structural homology of LGICs with the Acetylcholine Binding Protein (AChBP) suggest that the binding site is composed of six loops: A-F. In this study, we have used alanine scanning mutagenesis to investigate the importance of residues in the putative loop C region of the mouse 5-HT3AR for structural integrity, surface expression, ligand-receptor interactions (&39;binding&39;) and/or &39;gating&39;. To this end, amino acids E224-Y233 of the mouse 5-HT3AR were sequentially mutated to Alanine. Each mutant was characterized using radioligand binding to (3H) Granisetron. In addition, competition binding assays employing 5-HT and mCPBG were also carried out. Electrophysiological characteristics of each alanine mutant were studied using two-**electrode** voltage clamp studies in Xenopus laevis oocytes. In order to further investigate the roles of mutants that showed altered binding and/or function, secondary mutations were constructed and characterized by both radioligand and two-**electrode** voltage clamp studies. In addition, the cellular localization of alanine mutants that showed no binding and/or function was evaluated by epitope tagging and immunofluorescence studies. The results and conclusions of this

mutagenesis study will be presented. .

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FILE 'MEDLINE, BIOTECHDS, EMBASE, BIOSIS, SCISEARCH, CANCERLIT, CAPLUS'
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L1 182 S SARAF R?/AU OR WICKRAMESINGHE H?/AU
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L3 20 S L1 AND ELECTRON#####
L4 6 DUP REM L2 (2 DUPLICATES REMOVED)
L5 99361 S ELECTROD### AND SUBSTRAT##
L6 948 S L5 AND DNA
L7 169 S L6 AND RNA
L8 12 S L7 AND NANOPARTICL###
L9 1 S L5 AND R-LOOP
L10 1014 S R-LOOP
L11 4 S L10 AND ELECTROD##
L12 2 S L10 AND NANOPARTICL##

=> d ibib abs l12 1-4

L12 ANSWER 1 OF 2 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2000-07084 BIOTECHDS
TITLE: Self-assembled semiconducting nano-device is based on a structure comprising DNA molecule bonded to **nanoparticle** and extending between two electrodes; including an **R loop** and an RNA strand complementary to one strand of the DNA molecule inside the **R loop**
AUTHOR: Saraf R F; Wickramasinghe H
PATENT ASSIGNEE: International-Business-Machines
LOCATION: Armonk, NY, USA.
PATENT INFO: EP 987653 22 Mar 2000
APPLICATION INFO: EP 1999-306777 26 Aug 1999
PRIORITY INFO: US 1998-154575 17 Sep 1998
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2000-239256 [21]
AN 2000-07084 BIOTECHDS
AB A nano-device structure comprises a substrate, first and second electrodes on the substrate, a DNA molecule extending between the two electrodes, and a **nanoparticle** bonded to the DNA. The DNA molecule includes an **R-loop** and the **nanoparticle** is bonded to the DNA molecule inside the **R -loop**. The structure also includes an RNA strand complementary to one strand of the DNA molecule inside the **R-loop**. Also claimed are a method of producing the structure and a method for controlling a device that comprises the structure comprising: creating a bias in the electrically conducting material; and regulating a change in the **nanoparticle** to effect a change in the current in the electrically conducting material. Production of devices on a nanometric scale by overcoming the limitations imposed by photolithographic techniques. The devices have extremely small active feature sizes. (19pp)

L12 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:190838 CAPLUS
DOCUMENT NUMBER: 132:230657
TITLE: Self-assembled nanodevices using DNA and their fabrication

INVENTOR(S): Saraf, Ravi F.; Wickramasinghe, Hemantha
PATENT ASSIGNEE(S): International Business Machines Corporation, USA
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 987653	A2	20000322	EP 1999-306777	19990826
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TW 457736	B	20011001	TW 1999-88113652	19990810
KR 2000028630	A	20000525	KR 1999-36646	19990831
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US 2002098500	A1	20020725	US 2001-972958	20011010
US 6656693	B2	20031202		
PRIORITY APPLN. INFO.:			US 1998-154575 A	19980917
			US 2000-604680 B1	20000627

AB The nanodevices include a DNA mol. having an **R-loop** and a **nanoparticle** bound to the DNA mol. in the interior of the loop.